



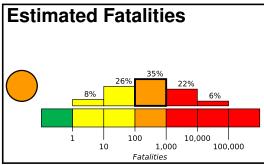


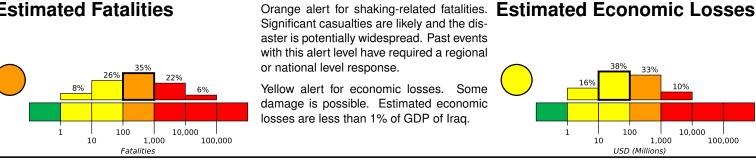
**PAGER** Version 2

Created: 1 hour, 36 minutes after earthquake

## M 7.3, 30km SW of Halabjah, Iraq

Origin Time: 2017-11-12 18:18:18 UTC (Sun 21:18:18 local) Location: 34.9568° N 45.7923° E Depth: 25.0 km





**Estimated Population Exposed to Earthquake Shaking** 

| ESTIMATED POPULATION EXPOSURE (k=x1000) |                          | _*       | 17,931k* | 37,507k | 10,838k  | 1,802k   | 326k        | 0          | 0        | 0        |
|---|--------------------------|----------|----------|---------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY   |                          | I        | 11-111   | IV      | V        | VI       | VII         | VIII       | IX       | X+       |
| PERCEIVED                               | SHAKING                  | Not felt | Weak     | Light   | Moderate | Strong   | Very Strong | Severe     | Violent  | Extreme  |
| POTENTIAL                               | Resistant<br>Structures  | None     | None     | None    | V. Light | Light    | Moderate    | Mod./Heavy | Heavy    | V. Heavy |
| DAMAGE                                  | Vulnerable<br>Structures | None     | None     | None    | Light    | Moderate | Mod./Heavy  | Heavy      | V. Heavy | V. Heavy |

<sup>\*</sup>Estimated exposure only includes population within the map area.

## Population Exposure

population per 1 sq. km from Landscan 10000 5000

## 43.2°W Lankaran -Khvoy Ardabil Tabriz Batmaii Ш ĵij.6°N Orumiyeh Rasht Dihok Zanjan Al Mawsil al Jadida ymaniyah N Hamadan Kahriz Samarra Arak Khorramabad Baghdad 32.9°N

# **Structures**

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are adobe block and low-rise nonductile concrete frame with infill construction.

#### **Historical Earthquakes**

| Date       | Dist. | Mag. | Max     | Shaking |
|------------|-------|------|---------|---------|
| (UTC)      | (km)  |      | MMI(#)  | Deaths  |
| 1962-09-01 | 371   | 6.9  | IX(4k)  | 12k     |
| 2002-06-22 | 301   | 6.5  | VII(5k) | 227     |
| 1990-06-20 | 383   | 7.4  | IX(83k) | 45k     |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

### **Selected City Exposure**

| from | GeoNames.org |  |
|------|--------------|--|
|------|--------------|--|

| MMI | City                | Population |
|-----|---------------------|------------|
| VII | Halabjah al Jadidah | <1k        |
| VII | Derbendixan         | <1k        |
| VII | Seyid Sadiq         | <1k        |
| VII | Halabjah            | 57k        |
| VII | Tazehabad           | <1k        |
| VI  | Kelar               | <1k        |
| ٧   | Erbil               | 933k       |
| IV  | Baghdad             | 7,216k     |
| IV  | Tabriz              | 1,425k     |
| IV  | Ahvaz               | 841k       |
| IV  | Mosul               | 1,740k     |

bold cities appear on map.

(k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

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